**Table 5.1-22. Comparison of Cumulative Concentrations with Ambient Air Quality Standards**

| Pollutant | Averaging Period | Modeled Design Concentration[1] | Background Concentration | Total Concentration[2] | NAAQS/ WAAQS |
|---|---|---|---|---|---|
| | | ($\mu g/m^3$) | | | |
| CO | 1-hour | 87.5 | 2,364 | 2,452 | 40,000 |
| | 8-hour | 69.4 | 1,461 | 1,530 | 10,000 |
| $NO_2$ | 1-hour | 19.6 | 70 | 89.6 | 188 |
| | Annual | 0.588 | 13 | 13.6 | 100 |
| $PM_{10}$ | 24-hour | 10.1 | 31 | 41.1 | 150 |
| $PM_{2.5}$ | 24-hour | 6.59 | 20 | 26.6 | 35 |
| | Annual | 0.295 | 6 | 6.30 | 12 |
| $SO_2$ | 1-hour | 16.9 | 25 | 41.9 | 196 |
| | 3-hour | 17.1 | 19 | 36.1 | 1,300 |
| | 24-hour | 10.4 | 9 | 19.4 | 365 |
| | Annual | 0.207 | 8 | 8.21 | 52 |

Notes:

[1] The forms of the design concentrations are as follows:
CO, 1- & 8-hour average & SO2, 3- & 24-hour average – highest 2nd high concentration over the five modeled years of meteorological data
$NO_2$, 1-hour average – 98th percentile of the annual distribution of daily maximum 1-hour average concentrations averaged at each receptor over the five modeled years of meteorological data
$NO_2$ & $SO_2$, annual average – maximum annual average concentration
$PM_{10}$, 24-hour average – highest 6th high concentration over the five modeled years of meteorological data
$PM_{2.5}$, 24-hour average – 98th percentile of the annual distribution of 24-hour average concentrations averaged at each receptor over the five modeled years of meteorological data
$PM_{2.5}$, annual average – maximum annual average concentration averaged over the five modeled years of meteorological data
$SO_2$, 1-hour average – 99th percentile of the annual distribution of daily maximum 1-hour average concentrations averaged at each receptor over the five modeled years of meteorological data

[2] Total Concentration = Modeled Design Concentration + Background Concentration

#### *5.1.4.4.2 Toxic Air Pollutants*

WAC 173-460 regulates emissions of almost 400 substances as TAPs. When anticipated emissions of a given TAP exceed a prescribed "Small Quantity Emission Rate for that TAP, EFSEC requires permit applications to include dispersion modeling of TAP emissions and to include a comparison of calculated concentrations attributable to the project with the ASILs. If calculated concentrations are less than the ASILs, a permit can be granted without further analysis. Otherwise, the Applicant must revise the project or submit a health risk assessment demonstrating that toxic emissions from the project are sufficiently low to protect human health. Concentrations below the ASILs indicate insignificant potential for adverse health effects from these chemicals.

Table 5.1-12 identifies Facility-wide TAP emissions and was used to determine whether Facility-wide emissions of each TAP exceed its SQER. A dispersion modeling analysis for those TAPs emitted at rates exceeding the SQERs was conducted in the same manner as for the criteria pollutants.